State of the Roadway Network in Paradise Valley

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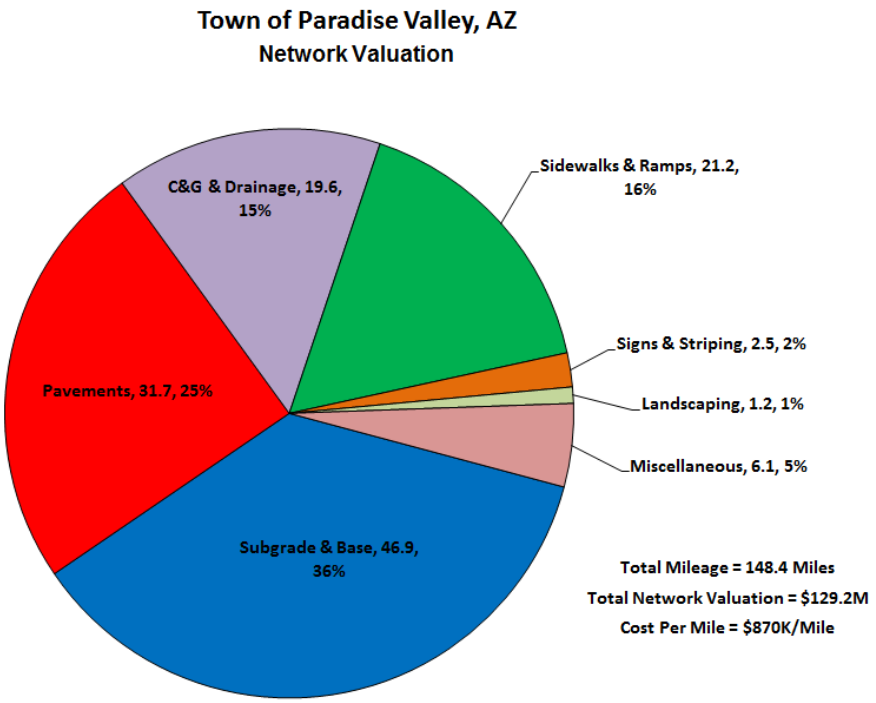
Purpose of This Presentation

- ***June 2019 Pavement Condition Index (PCI) Results***
- ***Town Pavement Management Strategy***
- ***Understanding Current PCI Ratings***
- ***Reviewing Town Funding Models***

Scale of Investment …

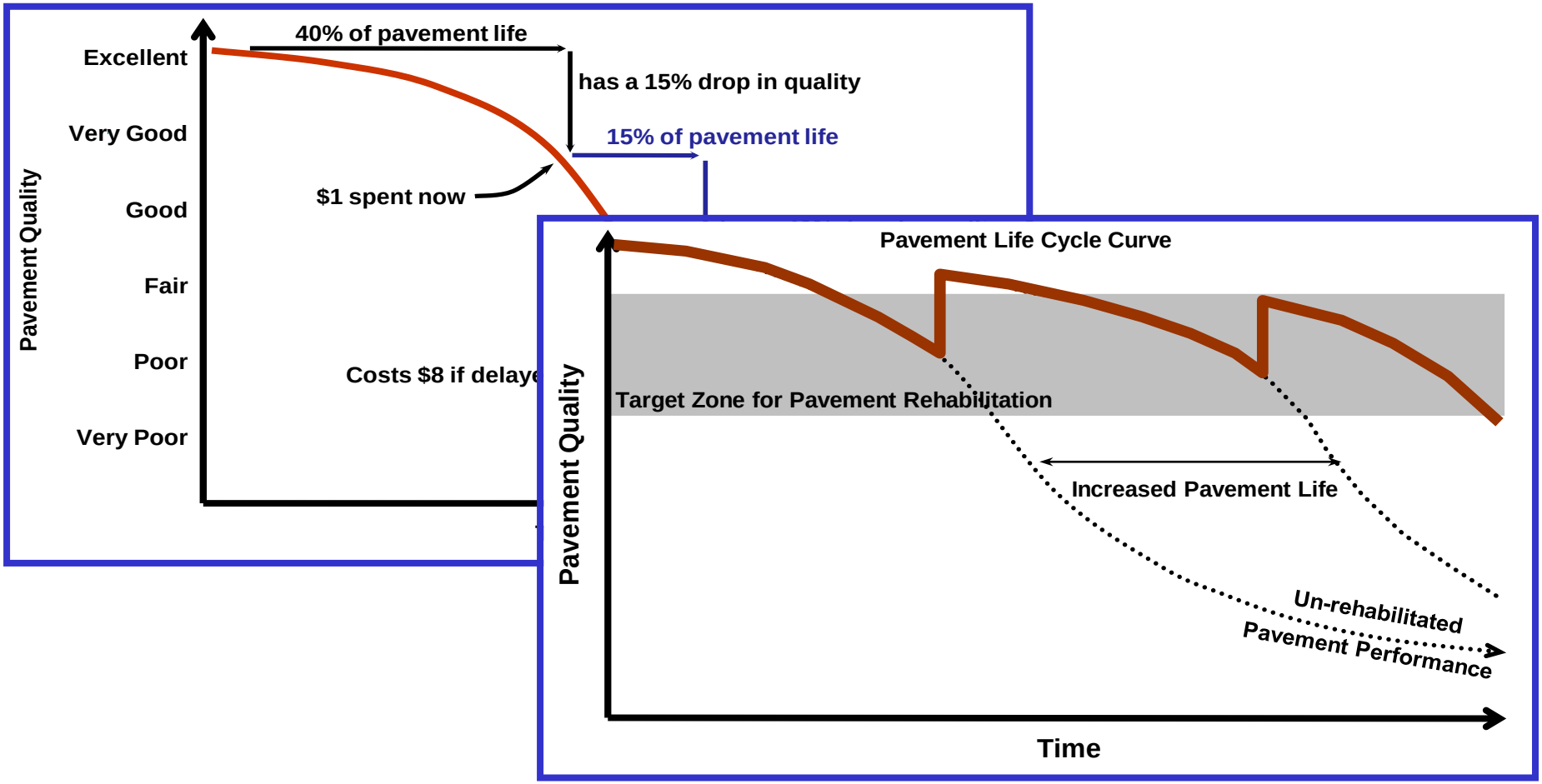


~14,293 people
~148 CL miles of Town owned roadways
2.6M square yards of pavement

Single largest Town asset valued at $870K/mile or $129M total plus improvements and ROW
(not including the value of land, bridges, sidewalks, etc.)

Early look at the condition score:
PCI = 77 (Very Good)
Back log = 0.2% (target ≤ 10%)

Why do Pavement Management?



A pavement management system is a set of tools or methods that assist decision makers in finding optimum strategies for providing and maintaining pavements in a serviceable condition over a given time period

Concept of Pavement Management …

Town
Objectives,
Policies & Budgets

Balanced Approach

Priorities,
Analysis Techniques
& Reporting

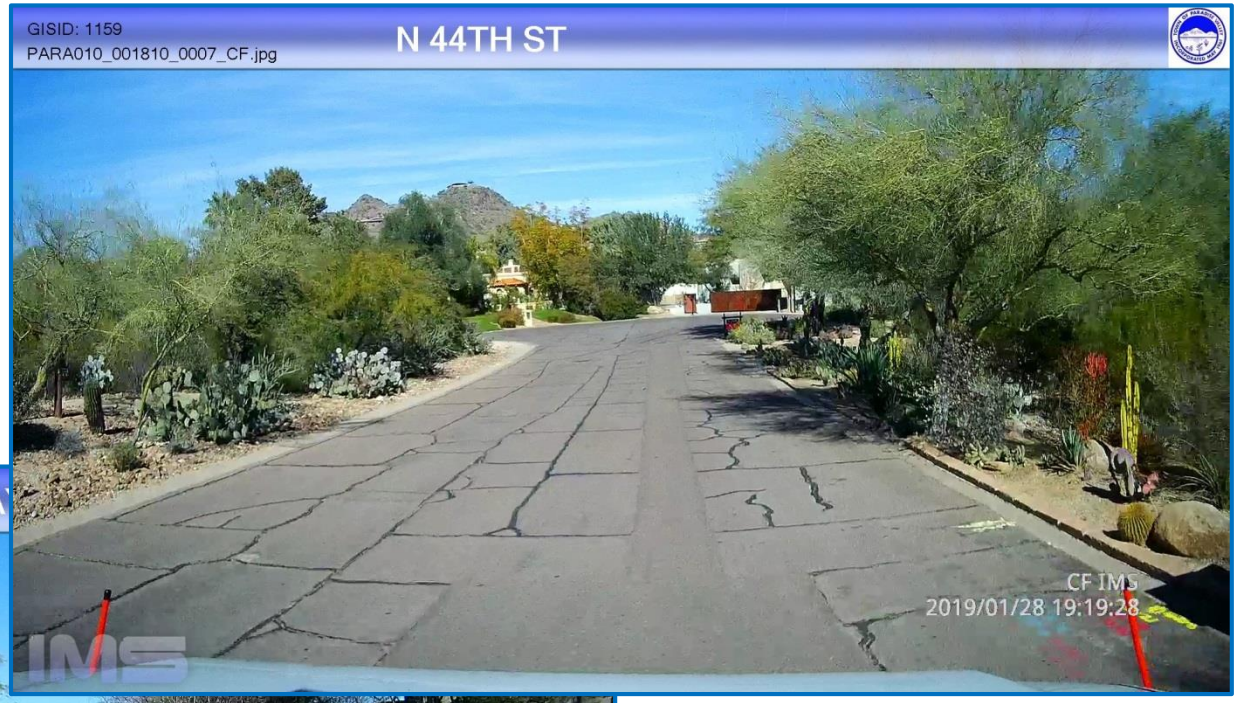
Understanding of
Condition

Tools to Rate the Streets – Objective Surveys …

Understanding the PCI….Very Poor (0 – 25)

Understanding the PCI … Poor to Marginal (25 – 50)

Localized base failures
Rutting at intersections
Extensive cracking
Extensive patching

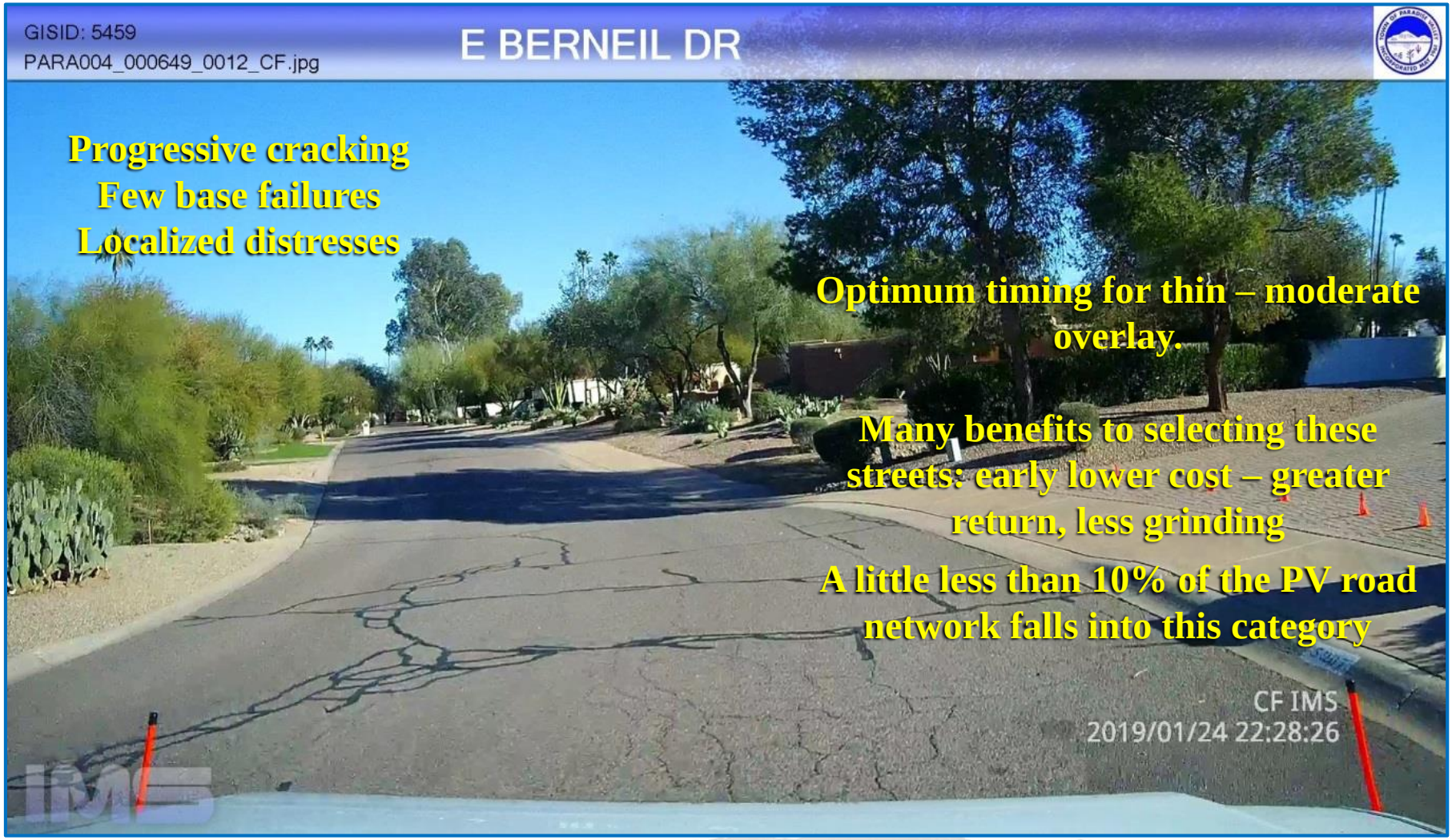


Tired streets due for a thicker overlay, possibly a surface removal and replacement on ACP roads.

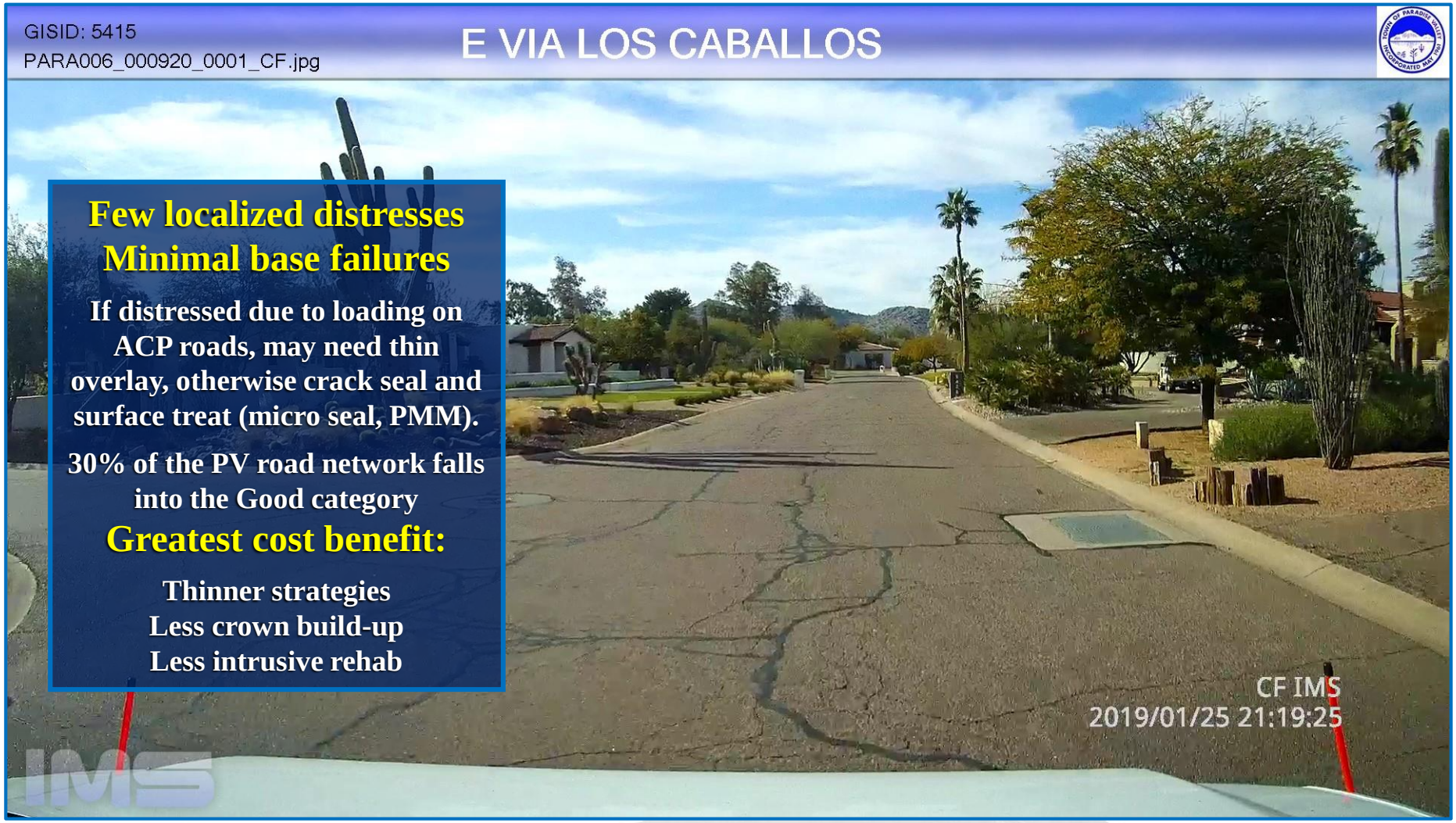
Critical roads in this category are a high priority to avoid reconstruction

Less than 5% of PV road network falls into these categories

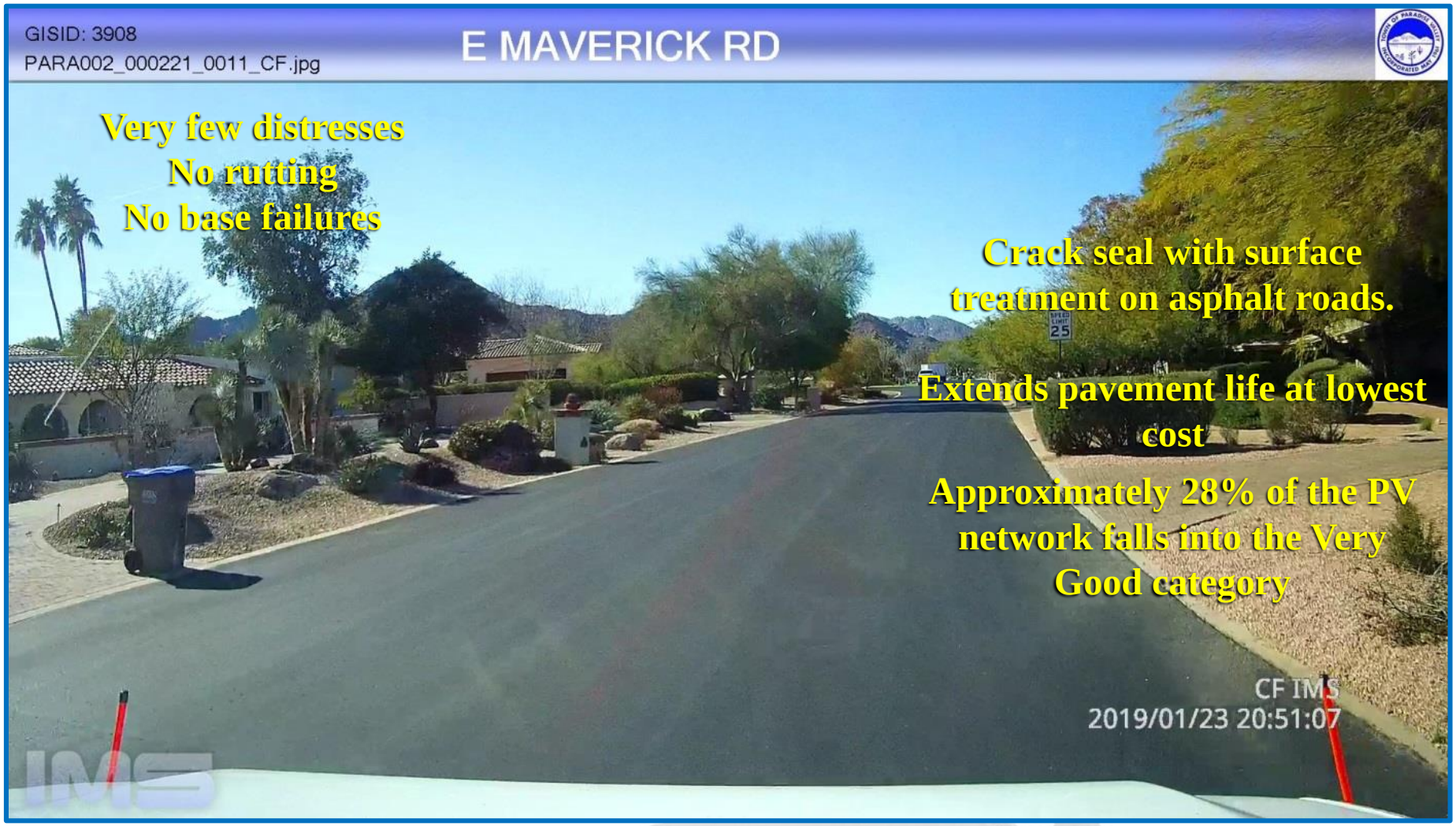
Understanding the PCI … Fair (50 – 60)



Understanding the PCI … Good (60 – 70)

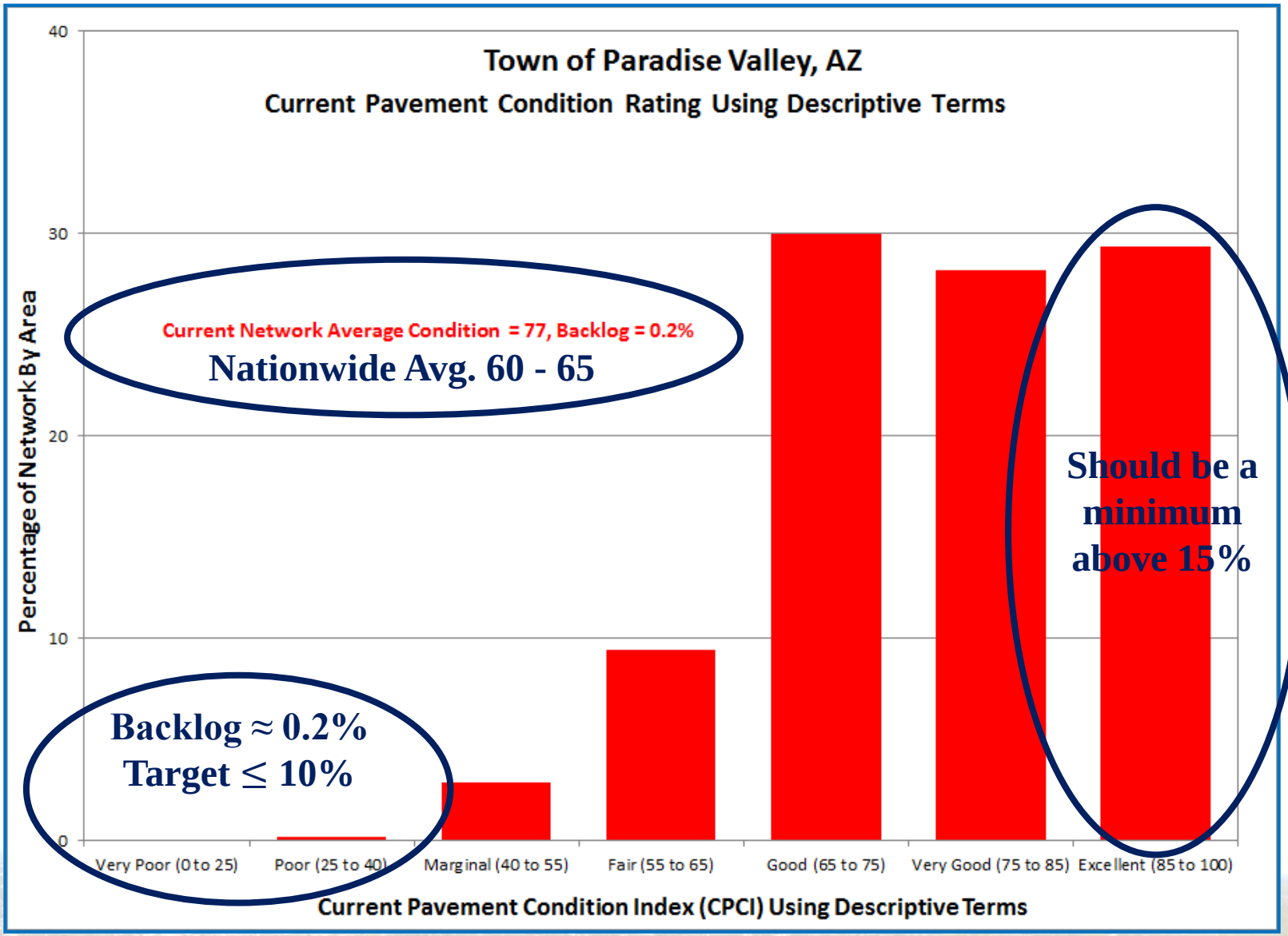


Understanding the PCI … Very Good (70 – 85)



Understanding the PCI … Excellent (85 – 100)

Paradise Valley Results … 3 metrics of health

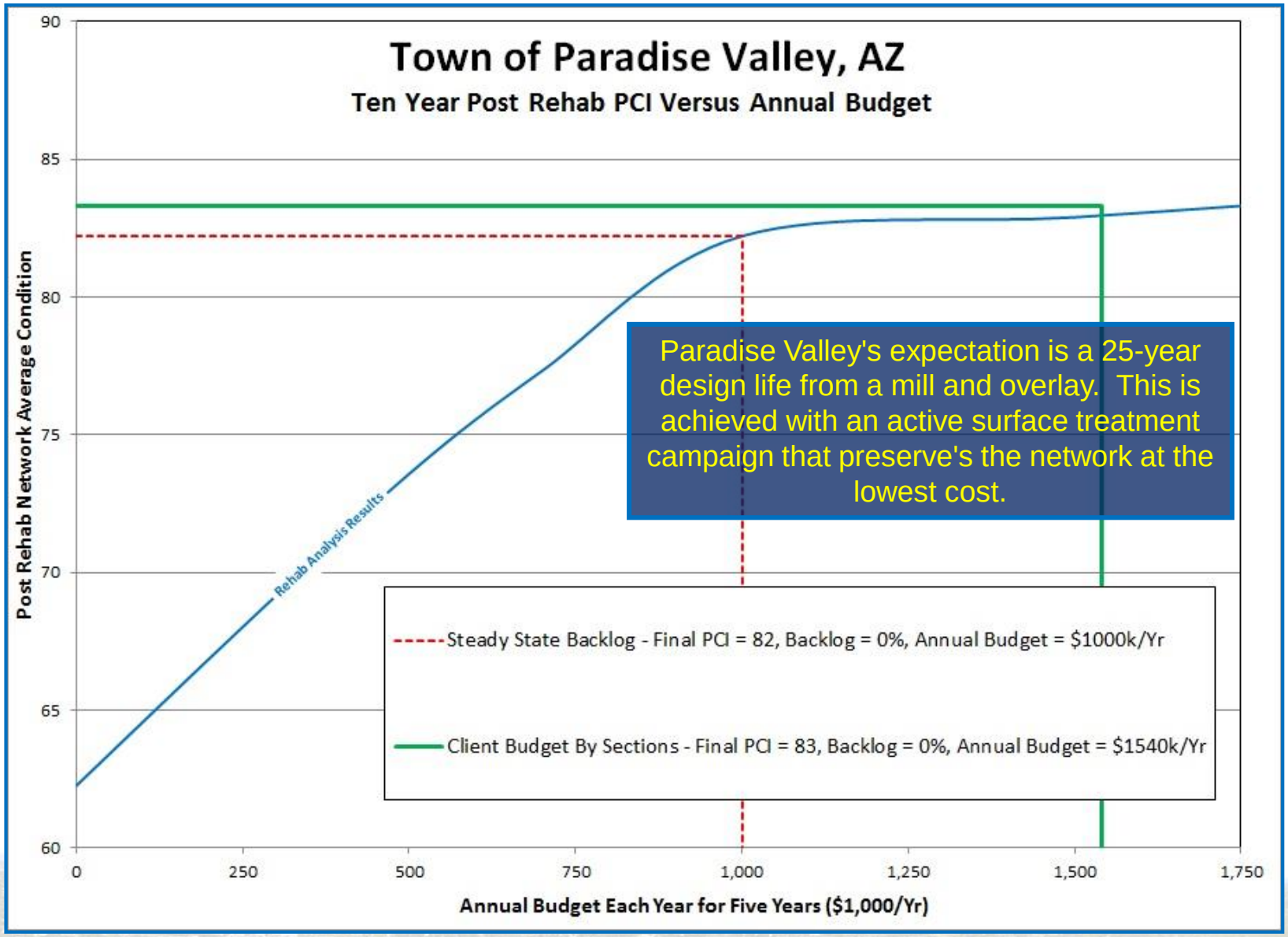


Town of Paradise Valley Methodology …

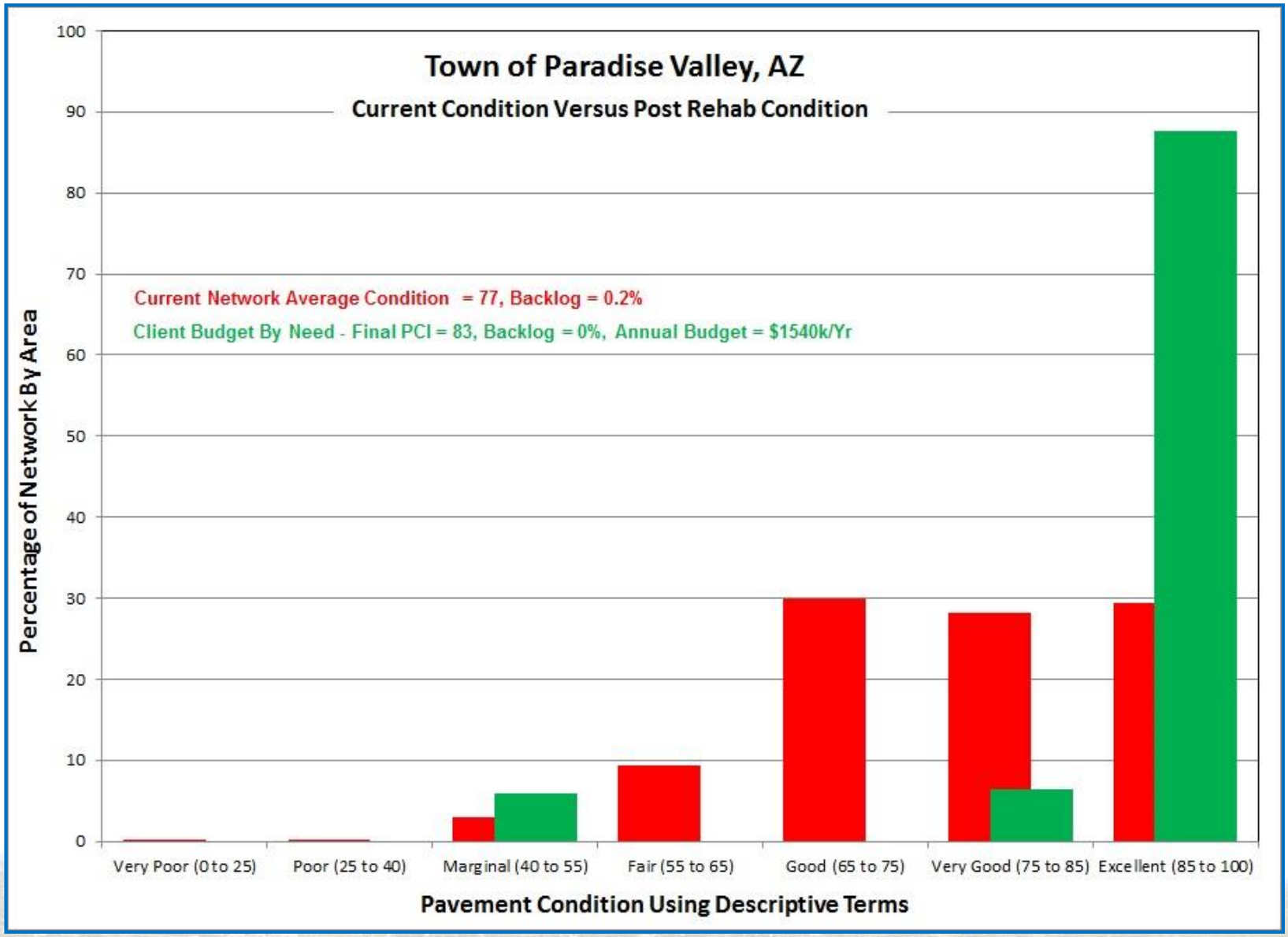
1. Funding is not $0, nor is it unlimited
2. Paradise Valley places a value on its roadway network

   Arterials – Collectors – Locals
3. Identify annual budget to maintain current PCI & Backlog
4. Examine effects of current funding levels
5. Prevent deterioration in pavement quality
6. ADA compliance not included
7. No cost inflation
8. Pavement management is priority based, not worst-first

Post Rehab PCI & Annual Funding …



Post Rehab PCI & Annual Funding …



Town of Paradise Valley Summary …

1. At a minimum maintain PCI at or above 77 with a backlog below 5% for entire roadway network.
2. The Town's planned budget of $1.54M annually will result in a network PCI of 83 and backlog of 0% over the next 10 years.
3. Less than 1 in 20 municipalities we survey will score above a network average PCI score of 80.
4. This Town's annual investment has put the town of PV's roadways in the top 10% of agencies across the nation.
5. Public Works reviews rehabilitation strategies on an annual basis to maximize the service life of roadways.
6. Steady – effective rehabilitation and maintenance on an annual basis will continue to save the Town money over deferred maintenance.
7. Town should resurvey their streets every 5-years to update the condition data, budget models, and rehab program.

Questions? …